

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013961**Date Inspected:** 06-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	William Sherwood and Jim Cunningham			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	Orthotropic Box Girder		

**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG L3E/L4E side plate 'E' outside, QA randomly observed ABF/JV qualified welder Mitch Sittinger continue perform CJP groove welding repair. The welder was observed welding in the 4G (overhead) position utilizing Shielded metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. The weld repairs were excavated to a boat shape. The repair excavations were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC William Sherwood was noted monitoring the welder. Prior welding, ABF QC William Sherwood was also observed performing Magnetic Particle Testing (MT) on the repair excavations. During the shift, the welder has completed four welding repair outside and was noted flush grinding the repaired areas and so with the temporary welding attachment removal at the end of the shift.

At OBG L3E/L4E side plate 'E' inside, ABF QC Tom Pasqualone, Steven McConnell and Jim Cunningham were noted performing Ultrasonic Testing (UT) on the splice butt joint. During the shift, welder Jordan Hazelaar was also noted excavating welding repair in this same plate. One excavation noted was having a dimension of 440mm long X 20mm wide and 12mm deep.

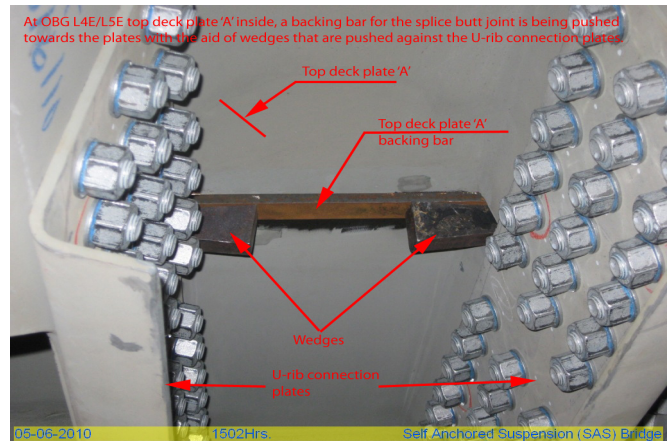
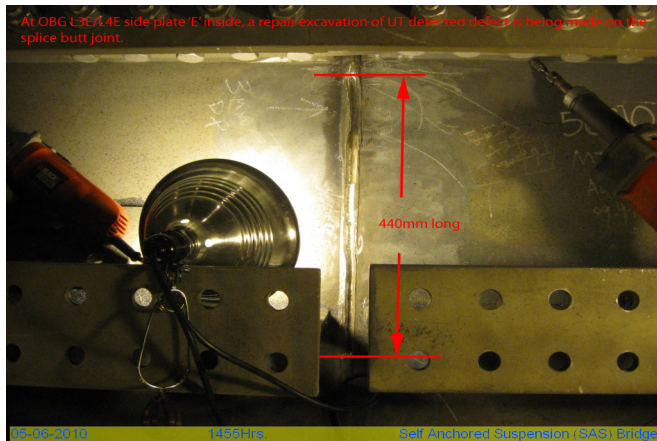
QA randomly observed ABF/JV qualified welders Rory Hogan (ID #3186) and Jeremy Dolman (ID #5042) continue perform CJP groove (splice) back welding fill to cover pass on Orthotropic Box Girder (OBG) L3E/L4E

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plate 'C' (4280mm to 8555mm / outside). The welders were observed welding in the 4G (overhead) position utilizing a dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3110-4. The welder was using a track mounted welder holder assembly that is remotely controlled. The joint being welded has the backing bar gouged using the Esab Plasma Arc machine and was ground smooth. The gouged and ground splice butt joint was also Non Destructive Testing (NDT) tested using the Magnetic Particle Testing (MT). The splice joint was preheated and maintained to greater than 200 degree Fahrenheit using Miller Proheat 35 Induction Heating System located at the other side of the plate prior/during welding and the vicinity was properly protected from wind. During welding, ABF Quality Control (QC) Jim Cunningham was noted monitoring the welding parameters of the welder. After welding the area mentioned above, the welders moved and welded at location 8555mm to 10555mm of the same plate. Welding in this area was completed at 1330 hours and the welders left the heat on and held it for two hours.

At OBG L4E/L5E top deck plate 'A' inside, QA observed welder Rick Clayborn perform tack welding of temporary attachment/ fit up gear for backing bar. The welder was noted using SMAW with E7018H4R 1/8" diameter electrode. ABF QC Bonifacio Daquinag was noted monitoring the welder. During the shift, the welder was noted pushing the backing bar close to the deck plate 'A' with the aid of wedges that were put in place against the 'U'-ribs. The welder has started pushing the backing bar from the North side and made his way to the South. At the end of the shift, work activity on this was still continuing.



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### Summary of Conversations:

As stated above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Mohammad Fatemi (916) 227-5298, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lizardo, Joselito
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell, Bill
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QA Reviewer
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